



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,756	09/17/2001	Ulrich Stieler	02365	8945

987 7590 06/14/2005

SALTER & MICHAELSON
THE HERITAGE BUILDING
321 SOUTH MAIN STREET
PROVIDENCE, RI 029037128

EXAMINER

KUHNS, ALLAN R

ART UNIT	PAPER NUMBER
----------	--------------

1732

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/936,756

Applicant(s)

STIELER, ULRICH

Examiner

Allan Kuhns

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on March 24, 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4, 17, 18 and 26-34 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-16 and 19-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2.Claims 1-3, 5-16, 19, 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckardt et al. (5,093,053) as set forth in the previous Office action.

3.Claims 21, 22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendry et al. (4,824,732) as set forth in the previous Office action.

4.Claims 4, 17, 18 and 26-34 are allowed.

5.Applicant's arguments filed March 24, 2005 have been fully considered but they are not persuasive. Applicant notes, with regard to the rejection based on Eckardt et al., that the examiner stated that the pressure on the blowing agent in the process of this reference is certainly lower after addition in order that the layer B can expand and that this pressure is the inherent pressure caused internally by the blowing agent mixed with the melt. Applicant then argues that in the present invention, the pressure control is that exerted on the blowing agent itself as injected and mixed within the melt and that pressure control is carried out with respect to the blowing agent in the non-mixed state with the melt. But this is the subject matter of claim 26, which has been allowed.

Applicant also argues that amendments to claim 1 clearly indicate that the propellant injection phase occurs at the moment when the propellant is added to the melt, particularly the second melt portion. To the examiner, this is not an issue; the

Art Unit: 1732

issue is the relative pressure taught or suggested by Eckardt et al. at a time later than the time of this injection phase.

Regarding the rejection based on Hendry et al., applicant argues that according to the present invention, the valve is designed such that it is ensured that the valve opens when the pressure on the blowing agent has reached a specific limit and closes when the pressure falls below this limit and that Hendry is silent with respect to whether valve 22 is operated in this manner. But, to the examiner, the valve system structure of Hendry et al. is present and capable of operating in the manner recited in the instant "device" claims and whether or not it is actually operated in that manner is a manipulative step suitable for defining a process over prior art.

Applicant also argues that valve 22 of Hendry et al. is not positioned at the injection point or point at which the blowing agent is fed to the melt, but it is the examiner's viewpoint that the valve of Hendry et al. is positioned at the injection point because the valve appears to be situated immediately upstream of passageway 19 which receives the injection of gas in Hendry et al.

Applicant presents a further argument that the melt and blowing agent are preferably injected into the cavity via the same sprue while in Hendry et al. there are separate injection means for the melt and fluid (gas). But this does not appear to be a limitation of any of the device claims rejected over Hendry et al.

Applicant also presents arguments concerning the widening of sprue 18 in the device of Hendry et al. But the instant device claims appear to be silent with regard to the structure of a sprue.

6.THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7.Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (571) 272-1202. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 1732

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Allan R. Kuhns

ALLAN R. KUHNS
PRIMARY EXAMINER AU 1732

6-9-05